DOCUMENT RESUME

ED 249 872 HE 017 773

AUTHOR Russell, Millie Louise; McNair, E. Wesley
TITLE Integrated Programs Sequenced to Enrich the Cognitive and Affective Skills of Minority Students Seeking Health Professional Training.
PUB DATE Jun 80
NOTE 7p.; Paper presented at the Chicago Area Health and Medical Careers Program Conference (Chicago, IL, June 12-13, 1980). Printed on colored paper.
PUB TYPE Guides - Non-Classroom Use (055) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Academic Advising; Affective Objectives; Allied Health Occupations Education; Cognitive Objectives; Dental Students; *Educational Objectives; Higher Education; *Minority Groups; Premedical Students; *Undergraduate Students
IDENTIFIERS *University of Washington

ABSTRACT

Academic advising strategies that have been helpful to minority students who aspire to become health professionals are outlined, and summer science programs at the University of Washington and the preprofessional program are briefly described. The university's Preprofessional Program for Minority Students in Health Sciences and the Meharry Summer Science Programs help prepare students for medical and dental programs. Among thirteen academic advising strategies outlined are the following: (1) determine what preprofessional courses have been consistently problematic; (2) if courses need to be developed to bridge cognitive and affective learning gaps, work with faculty to interject essential coursework into a required sequence of preprofessional preparation; (3) insure that mathematics courses start the student at the level that high school left off; (4) schedule students for courses that focus on basic English, writing, scientific writing, reading, and vocabulary; and (5) after a first year of basic courses, register students in a laboratory-based biology course focused on human biology. (SW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED249872

Integrated Programs Sequenced to Enrich the Cognitive and Affective Skills of Minority Students Seeking Health Professional Training

By
Millie Louise Russell, MS
E. Wesley McNair, PhD

PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Millie Louise Russell
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

HE017 223

COUPLING THE SUMMER SCIENCE PROGRAMS AT MEHARRY MEDICAL COLLEGE WITH THE PREPROFESSIONAL PROGRAM FOR MINORITY STUDENTS IN HEALTH SCIENCES AT THE UNIVERSITY OF WASHINGTON MEANS THAT FOR ELEVEN MONTHS OF EACH YEAR, STUDENTS ARE INVOLVED IN ACADEMIC PURSUITS. (1,2) EACH PROGRAM SEEKS TO DEVELOP WITHIN STUDENTS STRONG BACKGROUNDS IN BASIC SCIENCES, COMMUNICATION SKILLS, A SENSE OF STRENGTH THROUGH PEER SUPPORT IN ACHIEVEMENT, HIGH ACADEMIC ASPIRATIONS, UTILIZATION OF TUTORIAL SUPPORT SYSTEMS FOR EXCELLENCE, ONE-TO-ONE CONTACT WITH FACULTY AND EXTENSIVE CAREER AWARENESS. AFTER A FIRST YEAR OF CAREFULLY ORGANIZED COURSEWORK ENROLLED IN THE UNIVERSITY OF WASHINGTON PREPROFESSIONAL PROGRAM AND COMPLETION OF A SECOND YEAR OF PROGRAMMED BASIC SCIENCE COURSES, TWO MEHARRY SUMMER PROGRAMS: THE BIOMEDICAL SCIENCES PROGRAM (BSP) AND THE RESEARCH IN BIOMEDICAL SCIENCES (RIBS) HAVE SERVED AS ESSENTIAL ENRICHMENT FOR ASPIRING MINORITY UNIVERSITY OF WASHINGTON STUDENTS DESTINED FOR TERMINAL DEGREES AS HEALTH PROFESSIONALS. THE LOCATION CHANGE IN SUMMER FROM SEATTLE, WASHINGTON TO NASHVILLE, TENNESSEE, WITH ALL THE CONTRASTS YET SIMILARITIES OF BLACK AND MINORITY HEALTH PROBLEMS SERVES TO REFINE AND REFURBISH UNIVERSITY/MEHARRY STUDENTS CAREER GOALS AND RECOGNITION AND UTILIZATION OF USEFUL RESOURCES. STUDENTS DEVELOP CONTACTS AT MEHARRY THROUGH PEER REFERENCE GROUPS AND ROLE MODELS THAT SERVE TO REFRESHEN AND STRENGTHEN THEIR CONVICTIONS TO SUCCEED. THE REPEATED EXPOSURE TO POVERTY AND THE BASIC HEALTH NEEDS OF UNDERSERVED POPULATIONS FROM A NATIONWIDE PERSPECTIVE PROVIDES AN UNUSUAL LEARNING EXPERIENCE. THIS, COUPLED WITH THE STATUS THAT STUDENTS INTERNALIZE WHILE ON MEHARRY'S CAMPUS AND AGAIN IN HOME AREAS AS WINNERS OF NATIONALLY COMPETITIVE SUMMER SCIENCE SCHOLARSHIPS SERVE TO STRENGTHEN STUDENT ACADEMIC ENDEAVOR.

AT THIS TIME, THE UNIVERSITY OF WASHINGTON PREPROFESSIONAL PROGRAM FOR MINORITY STUDENTS IN HEALTH SCIENCES HAS 25% MATRICULATION OF STUDENTS INTO A VARIETY OF HEALTH PROGRAMS WHILE MAINTAINING AN OPEN ADMISSIONS POLICY MONITORED BY THE EDUCATIONAL OPPORTUNITY PROGRAM (EOP). THE MEHARRY SUMMER SCIENCE PROGRAMS ENJOY 80% SUCCESS RATE OF MINORITY STUDENT PARTICIPANTS INTO MEDICAL AND DENTAL PROGRAMS. FIFTY PERCENT TO 60% OF THESE STUDENTS ENROLL IN MEHARRY MEDICAL COLLEGE WHILE THE REMAINING 40% TO 50% ENROLL IN MEDICAL AND DENTAL SCHOOL NATIONWIDE. THIS ATTESTS TO MEHARRY'S HISTORICAL ROLE AS A CONTINUING AND UNIQUE NATURAL RESOURCE TO THESE UNITED STATES PRODUCING BLACK AND MINORITY HEALTH PROVIDERS WHO IN TURN TAKE CARE OF AT LEAST 87% OF THE HEALTH NEEDS OF BLACK PEOPLE. (3,4)

ACADEMIC ADVISING

SINCE ACADEMIC ADVISING EVOLVES AS ONE PRIMARY CRUCIAL NATIONWIDE VARIABLE CRITICALLY AFFECTING SUCCESSFUL MINORITY STUDENT SCIENTIFIC MATRICULATION, (5) LET US REVIEW A FEW OF THE HOW TO'S OF ACADEMIC ADVISING THAT HAVE PROVEN SUCCESSFUL AT THE UNIVERSITY OF WASHINGTON.

1. DETERMINE WHICH COURSES ON CAMPUS HAVE BEEN CONSISTENTLY PROBLEMATIC TO PREPROFESSIONAL MINORITY AND MAJORITY STUDENTS PURSUING HEALTH PROFESSIONAL CAREERS. PROBLEMATIC IMPLIES COURSES IN WHICH STUDENTS TEND TO EARN A GRADE OF LESS THAN A B AND/OR COURSES THAT STUDENTS OFTEN REPEAT OR DROP.

2. CONSULT CONTINUALLY, SINGLY AND IN JOINT SESSIONS WITH FACULTY TEACHING AND RESPONSIBLE FOR THESE PROBLEM COURSES TO IDENTIFY THE NECESSARY

COMPETENCIES AND SPECIFICALLY DETAILED BODY OF KNOWLEDGE THAT ASSURES PROFICIENT INDIVIDUALIZED STUDENT PERFORMANCE IN EACH COURSE.

3. REVIEW LECTURE NOTES OF THE VARIOUS PROFESSORS TEACHING PROBLEM COURSES AND RELATED COURSES ON CAMPUS TO DETERMINE THOSE COURSES THAT WHEN SEQUENCED WILL BUILD A FIRM BODY OF KNOWLEDGE TO ASSURE A VERY COMPETITIVE STUDENT PERFORMANCE LEVEL.

4. IF COURSES NEED TO BE DEVELOPED TO BRIDGE COGNITIVE AND AFFECTIVE LEARNING GAPS, ESTABLISH JOINTLY WITH FACULTY THE COURSE CONTENT AND MECHANISM TO INTERJECT ESSENTIAL COURSEWORK INTO A MANDATORY SEQUENCE OF PREPROFESSIONAL PREPARATION.

5. FACULTY AUTHORED PRETESTS ARE ADVISABLE PRIOR TO PLACEMENT OF STUDENTS IN COURSE ASSIGNMENTS TO OBJECTIVELY MEASURE STUDENT ABILITY IN ORDER TO ASSURE HIGH LEVEL STUDENT PERFORMANCE.
   EXAMPLE: PRETEST ABILITY TO ADD, SUBTRACT, MULTIPLY, DIVIDE DOUBLE NUMBERS AND WORK WITH RATIOS, FRACTIONS, PERCENTAGES PRIOR TO PLACEMENT OF STUDENT INTO PHYSICS.

6. MAKE CERTAIN THAT MATHEMATICS COURSES START THE STUDENT AT THE LEVEL THAT HIGH SCHOOL LEFT OFF. IT HAS PROVEN WORTHWHILE TO PUT ARITHMETIC (FRACTIONS, RATIOS, AND PERCENTAGES) INTO BASIC PHYSICS COURSE CONTENT WHILE PROVIDING STUDENTS WITH AN ABUNDANCE OF HANDS-ON LABORATORY EXPERIMENTS THAT STRESS CONCEPTUAL MATHEMATICAL REASONING.

7. REMEMBER TO SCHEDULE STUDENTS FOR IMMEDIATE AND CONTINUING COURSES THAT FOCUS ON BASIC ENGLISH, WRITING, SCIENTIFIC WRITING, READING, VOCABULARY AND HEALTH VOCABULARY WITH LATIN AND GREEK ROOTS TO REINFORCE BASIC READING AND WRITING PROFICIENCY.

8. BE SURE PROBLEM SOLVING, TEST TAKING, GRAPH INTERPRETATIONS, AND LISTENING AND STUDY SKILLS TECHNIQUES ARE PACKAGED FORMALLY INTO STUDENT COURSEWORK DURING THE FIRST YEAR OF CAMPUS MATRICULATION.

9. AFTER A FIRST YEAR OF BASIC ENGLISH, MATHEMATICS, PHYSICS AND HUMANITIES COURSES, A HANDS-ON LABORATORY BASED BIOLOGY COURSE SPECIFICALLY FOCUSED ON HUMAN BIOLOGY STRENGTHENS THE STUDENT FOR A BASIC MICROBIOLOGY COURSE. OFTEN TOO, THAT FIRST YEAR OF PHYSICS GIRDS STUDENTS CONCEPTUAL REASONING SO THAT PERFORMANCE IMPROVES IN BIOLOGY, MICROBIOLOGY, AND CHEMISTRY. (6,7)

10. ONCE THE FIRST YEAR OF BASIC LEVEL PHYSICS HAS BEEN COMPLETED, BASIC CHEMISTRY (PREFERABLY AN OVERVIEW COURSE FIRST) CAN BE SCHEDULED. MANY STUDENTS LEARN BEST FROM A DEDUCTIVE APPROACH SO AN OVERVIEW COURSE MAY SERVE STUDENTS WELL. (8) CHECK THE CONTENT OF EACH CHEMISTRY COURSE RATHER THAN DEPEND ON COURSE NUMBERS TO ASSURE THE CORRECT ORDER. THE ASSISTANCE OF CHEMISTRY FACULTY SHOULD BE SOLICITED.

11. IT MAY BE THAT THESE EARLY COURSES ARE NOT LISTED AS REQUIRED COURSES FOR STUDENTS IN PREMEDICAL MAJORS. THAT IS ALRIGHT. THESE ARE TRULY REQUIRED TO SUCCESSFULLY PROGRAM STUDENTS AT THE LEVEL OF COMPETENCY HIGH SCHOOL GRADUATION REPRESENTS. THEREFORE, THESE COURSES BECOME

REQUIRED AND SERVE AS ENRICHMENT COURSE SEQUENCES IF ONE IS TO PRODUCE ACADEMICALLY COMPETITIVE STUDENTS SECURE IN THE TASK AND PROCESS OF SCIENCE COURSEWORK.

12. FACULTY TEACHING CAPABILITY VARIES. THEREFORE, IT IS ALWAYS WISE TO LISTEN TO FEEDBACK FROM STUDENTS WHO HAVE COMPLETED COURSES SO THAT FACULTY RECOMMENDED TO STUDENTS AS TEACHERS ARE THOSE PERSONS WHO REALLY ARE EXCELLENT TEACHERS. (9,10)

13. ACADEMIC ADVISORS SHOULD VISIT CLASSES TO WHICH THEY ASSIGN STUDENTS. ADVISORS SHOULD RECOMMEND THAT COURSE LOADS BE KEPT AT THE MINIMUM LEVEL TO ASSURE FINANCIAL AID SO THAT STUDENTS WILL KEEP HIGH GPA'S. STUDENTS SHOULD BE TRAINED TO AIM FOR EXCELLENCE NOT JUST SURVIVAL PERFORMANCE. CLASS ATTENDANCE AND TUTORIAL SUPPORT SHOULD BE MANDATORY FOR FINANCIAL AID.

COMPETING FOR ANY PREMEDICAL CAREER (SUCH AS ALLIED HEALTH, NURSING OR PHARMACY) IS OFTEN JUST AS COMPETITIVE AND DIFFICULT NATIONWIDE AS COMPETING FOR MEDICAL OR DENTAL SCHOOL. AS A CONSEQUENCE, HIGH ACADEMIC ACHIEVEMENT MUST BE ONE PRIMARY CONCERN IF THE MINORITY POOL IS TO GROW IN HEALTH PROFESSIONAL SCHOOLS. (11) METICULOUSLY ARRANGED COURSE SEQUENCES ARE DESIGNED TO ASSURE THE ATTAINMENT OF HIGH GPA'S. THIS STRENGTHENS A SENSE OF STATUS IN EACH STUDENT WITHIN THE ACADEMIC COMMUNITY. THE FORBIDDING AUSTERE ATMOSPHERE OF THE TRADITIONAL UNIVERSITY ENVIRONMENT TENDS AT OUTSET TO NUMB THE SELF CONFIDENCE, INTELLECTUAL FUNCTION AND PROGRESS OF MANY MINORITY STUDENTS. MINORITY STUDENTS USUALLY REPRESENT ATYPICAL CAMPUS STUDENT PROFILES SOCIOECONOMICALLY AND CULTURALLY. (12,13) THEREFORE, IT IS ESSENTIAL TO BRIDGE THE GAP OF STUDENT ADJUSTMENT TO CAMPUS AND AFFECT THE SUCCESSFUL SOCIALIZATION OF MINORITY STUDENTS BY TENDING IMMEDIATELY TO THEIR DIDACTIC ACADEMIC NEEDS, AS WELL AS THEIR CULTURAL NEEDS. AS A RESULT, STUDENTS SOON PERCEIVE SUCCESS WITHIN THEIR CAMPUS SPACE. THEY LEARN TO IDENTIFY WITH SELF AS A STUDENT OF WORTH. EVENTUALLY, THEY IDENTIFY WITH STUDIOUS PEERS FROM A MULTIPLICITY OF BACKGROUNDS AS WELL AS INSPIRATIONAL ROLE MODELS. FROM THIS A STRONG SENSE OF INTERNAL LOCUS OF CONTROL EVOLVES. (14)

THE SIMPLE FACT IS THAT ALL COURSEWORK IS COMPREHENDED BECAUSE IT BEGINS AT THE LEVEL OF STUDENT COMPETENCE. THE RESULTANT REPECTABLE GPA FACILITATES STUDENT ABILITY TO INTERNALIZE THE LIKELIHOOD OF SUCCESS AND THE NEED TO UTILIZE COMPLETELY ALL CAMPUS RESOURCES TO SUSTAIN SUCCESS.

References

1. Heeth, Bob, "Meharry Summer Plan Aids Minority Students," The Nashville Banner, July 24, 1978, p. 14.

2. Russell, Millie L. and McNair, E. Wesley, "Interventions to Program Ethnic Minority Students for Health Services," to be published April 1, 1980 in the Journal of the Society of Ethnic and Special Studies.

3. Haglund, Keith, "A Minority Med School Faces Financial Crisis," The New Physician, November, 1978, Vol. 27, No. 11, p. 20-25.

4. U.S. Department of Health, Education and Welfare, September 1977, Health of the Disadvantaged, Public Health Service, Health Resources Association, DHEW/HRA No. 77-628.

5. U.S. Department of Health, Education and Welfare, December 1977, An Exploratory Evaluation of U.S. Medical Schools Efforts to Achieve Equal Representation of Minority Students, Health Resources Opportunity, DHEW/HRA No. 78-635.

6. Russell, Millie and Anderson, Edwin T., Four Year Summary Report of The Preprofessional Program for Minority Students in Health Sciences, University of Washington, Seattle, Washington, October 1978.

7. McDermott, Lillian C., Piternick, Leonie K., Rosenquist, Mark L., "Helping Minority Students Succeed In Science," The Journal of College Science Teaching, January 1980, p. 135-140.

8. Wright, Audrey and Vasquez, James, Action Inner-City: Latino Education, January 1979 Videotape broadcast by Television Station Channel 4, KCTS, Seattle, Washington.

9. McNair, E. Wesley, PhD, "An Investigation of Selected Teacher Intents from the Individualized Teacher Preparation Modules Used in Three North Florida In-Service Institutions and As Practiced in Level One TSCS Classrooms," Dissertation #75-967, Oxford University Microfilms, Ann Arbor, Michigan 48108, 1974.

10. Odegaard, Charles E., Minorities in Medicine: From Receptive Passivity to Positive Action, 1966-76, Josiah Macy Jr. Foundation, New York, Port City Press, Baltimore, MD, 1977.

11. Russell, Millie L. and McNair, E. Wesley, "Interventions to Program Ethnic Minority Students for Health Services," to be published April 1, 1980 in the Journal of the Society of Ethnic and Special Studies.

12. U.S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE, DECEMBER 1977, AN EXPLORATORY EVALUATION OF U.S. MEDICAL SCHOOLS EFFORTS TO ACHIEVE EQUAL REPRESENTATION OF MINORITY STUDENTS, HEALTH RESOURCES OPPORTUNITY, DHEW/HRA No. 78-635.

13. U.S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE, MINORITY HEALTH CHART BOOK, AMERICAN PUBLIC HEALTH ASSOCIATION, NO. HRA 106-74, OCTOBER 1974.

14. VASQUEZ, JAMES A., PHD. "LOCUS OF CONTROL, SOCIAL CLASS AND LEARNING," 1975, UNIVERSITY OF WASHINGTON, SEATTLE, WASHINGTON.